ISSN: 3049-2521 (O)

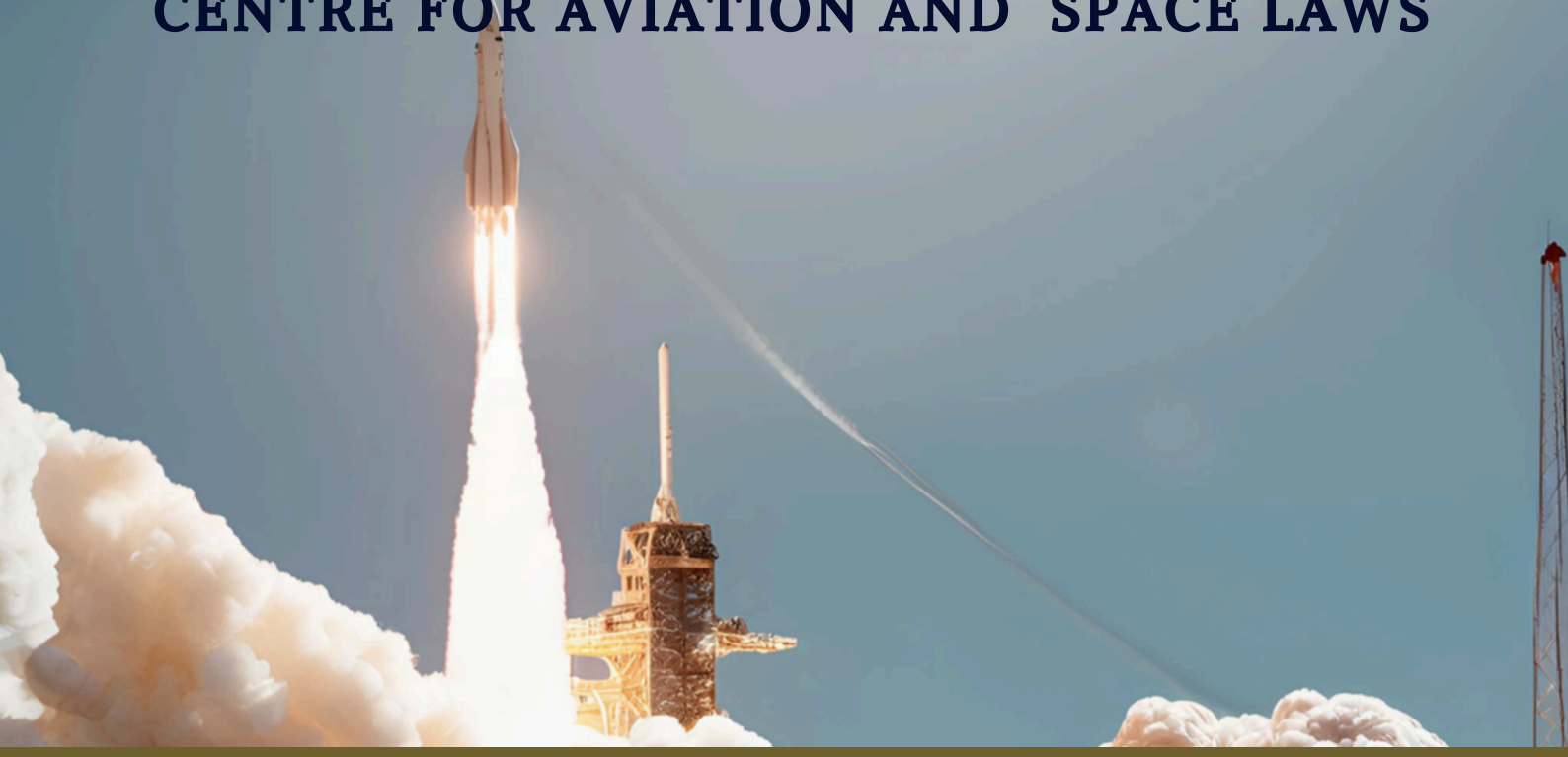
Volume 2 Issue I

2022

LEX AD COELUM

A Flagship Journal of

CENTRE FOR AVIATION AND SPACE LAWS



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JURISDICTION UNDER ARTICLE 84 OF THE CHICAGO CONVENTION 1944 IN THE CONTEXT OF MIDDLE EAST CONFLICT

Sandeepa Bhat B.[*] *& Tushar Krishna*[**]

Keywords: Consultation – Countermeasures – Formalistic approach – Negotiation – Riyadh Agreements

Background

In 2013 and 2014, the Gulf Cooperation Council had undertaken specific instruments, known as "Riyadh Agreements", under which Qatar and other middle eastern States have made commitments to establish peace. During June 2017, Saudi Arabia, Bahrain, United Arab Emirates (UAE) and Egypt alleged that Qatar has failed to adhere to its commitments under Riyadh Agreements, and thereby, they resorted to take certain countermeasures to make Qatar comply with its commitments. These countermeasures included airspace restrictions for the Qatar registered aircrafts, which triggered Qatar filing an application before the ICAO Council under Article 84 of the Chicago Convention 1944. While the ICAO Council assumed jurisdiction and decided the case in June 2018, Saudi Arabia, Bahrain, UAE and Egypt (herein after "the appellants") appealed against this decision to the International Court of Justice (ICJ). The appellants contended the lack of jurisdiction of the ICAO Council as well as inadmissibility of Qatar's claims. However, the ICJ rejected the appeal and held that ICAO Council's exercise of jurisdiction was valid, and Qatar's application to the ICAO Council was admissible. This decision of the ICJ has brought forward two prominent issues in the ICAO dispute settlement mechanism, which are addressed hereunder.

Scope of Jurisdiction of the ICAO Council

One of the primary grounds of appeal in this case has been on the ICAO Council's exercise of jurisdiction, which according to the appellants was beyond the scope of its authorization. Text of Article 84 clearly states that "If any disagreement between two or more contracting States *relating to the interpretation or application of this Convention and its Annexes* cannot be settled by *negotiation*, it shall, on the application of any State concerned in the disagreement, be decided by the Council." Since the

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"countermeasures" taken by the appellants in this case against Qatar for the violation of Riyadh Agreements are under the broader domain of public international law, it is not a subject matter under the Chicago Convention, and therefore, the ICAO Council is argued to have no jurisdiction in this case. Thus, the question is how the ICAO council can decide the lawfulness of the countermeasures, as it is not competent to assess it holistically?

The ICJ has observed that "the prospect that a respondent would raise a defence based on countermeasures in a proceeding on the merit […] does not in and of itself have any effect on […] jurisdiction". The Court referred to its finding in *India* v. *Pakistan* Case. However, Berman J. in his separate opinion mentions the need to understand the limits of ICAO Council's jurisdiction and states that "the invocation of a broader legal defence cannot expand the Council's competence". The majority opinion denied such a finding and went by the argument that for reaching a proper decision on the disputes falling within its jurisdiction, the ICAO Council is entitled to examine certain issues falling outside the matter of civil aviation. Thus, the ICJ held that the integrity of the ICAO Council's dispute settlement functions would not be lost simply because it examined the issues outside the scope of Chicago Convention for discharging its essential obligations under the Chicago Convention. Although it may appear that this is a rare instance where the Court has so clearly asserted the expansive approach of the adjudicatory body's ratione materiae, it is nothing but the Court's conformity with the recent jurisprudence it has raised. For example, in *Nuclear Test* Case, the Court observed that "an adjudicative body can make necessary findings to ensure its exercise of jurisdiction over the merits of the case".

This debate on the limits of jurisdiction is not just found at the ICAO Council's level but also at different other international adjudicatory bodies' level. The WTO dispute settlement mechanism is one of the classic examples in this regard, wherein the questions have arisen as to whether the WTO Dispute Settlement Body (DSB) is having jurisdiction only with respect to covered agreements or can the DSB deal with public international law or domestic law issues whenever they are closely connected with the international trade law issues. In the *Mexico Soft Drinks* case, the Appellant Body observed that it is not on the WTO panels to decide on the non-WTO disputes, and thus, it cannot adjudicate an internationally wrongful act in the context of defence of countermeasures. However, as a general rule the WTO

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jurisprudence has tilted in favour of exercising the jurisdiction in environmental issues, public health aspects, personal laws etc while deciding the trade disputes. Though the WTO DSB has gone in favour of more inclusive jurisdiction, it has resulted in a serious crisis. This expansive approach is said to be one of the primary reasons for the United States blocking the appointments to the Appellate Body, and thereby, paralyzing a vibrant dispute settlement mechanism. Thus, the larger question here is whether such an expansive approach would put the principle of consent (of parties to the treaties) into a threat as it provides a back door entry for those issues that were either not negotiated or not agreed upon.

Negotiation under Article 84

The second major issue is relating to the precondition of negotiation before referring the dispute to the ICAO Council under Article 84 of the Chicago Convention. This precondition is supplemented by Article 2(g) of the ICAO Rules for the Settlement of Differences (ICAO Rules), which states that a party submitting a dispute to the ICAO Council must attach a memorial containing "a statement that negotiations to settle the disagreement had taken place between the parties but were not successful." However, Qatar didn't put forward a formal request for 'negotiation' to any of the appellants under Article 84, rather there were some general attempts made either by means of Qatar referring the disputes to third States and also seeking for consultation under the WTO regime or by virtue of the ICAO Council trying to allow negotiation between the parties after the dispute was referred to it. Moreover, Qatar also failed to comply with Article 2(g) of the ICAO Rules by not including the requisite statement in the memorial. Hence, the appellants argued that Qatar's case was inadmissible.

Interestingly, the efforts made by Qatar, though not formal under Article 84, were held by both the ICAO Council and the ICJ to be sufficient to meet the requirement of negotiation in the context of circumstances involving appellants' unwillingness to negotiate. Though the ICJ reiterated that Article 84 applies with regard to "only those disputes which cannot be settled through negotiation" and this precondition "must be satisfied to establish court's jurisdiction", it went by the lower threshold for satisfying this precondition. A genuine attempt for negotiation by the disputing party is said to be sufficient, and failure of negotiation is supposed to be understood

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as a lower threshold of "theoretical impossibility' rather than a higher threshold of "no reasonable probability of further negotiation leading to a settlement". On the issue of failure to comply with the requirement of Article 2(g) of the ICAO Rules, the ICJ referred to the part of Qatar's application and memorial mentioning "A statement of attempted negotiations", wherein Qatar blamed that the appellants did not permit any opportunity to negotiate on aviation restrictions. This statement along with the confirmation of the Secretary General that Qatar's application complied in form with the requirements under Article 2 of the ICAO Rules was found to be sufficient by the ICJ in ruling in favour of Qatar.

This leads us to the question- when a treaty is specifically asking for negotiation as a specific mechanism, isn't it imperative on the States to invoke it formally to arrive at an amicable settlement? Again when we draw parallel from the WTO dispute settlement, we can find that Article 4 of the Dispute Settlement Understanding (DSU) specifies the mandatory requirement of consultation between the disputing parties before invoking the jurisdiction of the WTO panels. This mandate has been for ensuring that the parties would get sufficient opportunity to discuss their concerns and reach a mutually acceptable solution. This mandate under Article 4 of the DSU is rigid, formal and indispensable, and it cannot be satisfied in an indirect way as Qatar is said to have complied with in the present case. Hence, the essence of such consultation under the DSU is that a party having any concern must notify the other party/ies concerned formally for consultation under Article 4 of the DSU by stipulating the specific provision/s involved under the WTO Agreements. Due to such a formalistic approach, several trade disputes end at this consultation stage itself as the parties understand the concerns expressed by each other through consultation. This shows the effectiveness of the consultation process, if followed under a formalistic approach.

Similar to the process of consultation, negotiation gives scope for parties to remove any misunderstanding by way of clarifying their concerns. Indeed, the ICJ in the present case had accepted the references to negotiation by Qatar, which were in bits and pieces without any one formalistic reference of negotiation under Article 84. This leads to the question that if the Court is accepting such a lower threshold for satisfying the precondition of negotiation, isn't it impacting the purpose behind such a precondition? It appears that such a lower threshold of compliance would ignite distrust among the parties in the absence of direct communications, and thereby, fail

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to bring an understanding of the situation that the parties are undergoing. Hence, a more formalistic approach to negotiation, especially with its increased significance as an alternative dispute settlement mechanism, is required under Article 84 of the Chicago Convention to ensure amicable settlement of disputes.

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SPACE EXPLORATION AND INDIA'S GEOPOLITICAL DILEMMA

Dhruv Singh Garcha & Krishna Ravishankar[*]

Keywords: Artemis Accords – Delhi Declaration of Friendship – Geopolitics – International Lunar Research Station – Space Exploration

Given the rapid growth and advancement in technology, space exploration has moved up the ladder of many countries' national priorities. With the geopolitical matrix unfolding even while exploring the realm of the cosmos, the American backed Artemis Accords and the Sino-Russian International Lunar Research Station (ILRS) project have been the most significant multilateral developments with respect to space governance. This article tries to navigate the path that India as an emerging space power should take which would be beneficial for her space ambitions, keeping in mind her geostrategic interests.

Who Owns Space?

Before looking into the Accord, it is crucial to understand the legalities behind space resource ownership. The chronology begins with the UNGA Declaration of 1963, which debarred claiming sovereignty over celestial bodies. Then came the Outer Space Treaty of 1967, that prohibited the placement of Weapons of Mass Destruction and the establishment of military bases in Space. Furthermore, it laid down minimum regulatory guidelines for resource explorative activities. It was followed by the Moon Agreement of 1979, which refined the regulations entailed in the 1967 treaty and provided for an efficient framework to restrict the exploitation of space resources. However, the letter of the treaties lacks clarity. Article 1 of the 1967 treaty describes outer space as the "province of all mankind." On the other hand, Article 11 the 1979 agreement describes it as "common heritage of mankind." This inconsistency has led to long-standing debates about the interpretation and implications of these phrases. The US has always asserted the 1967 treaty's definition of outer space since it allows for private and state ownership over resources extracted from celestial bodies. Furthermore, it is silent on private ownership over the entire outer space itself, something the Accords are likely to take advantage of. The US's assertion was further solidified through an executive order dated April 2020 which instructs the Secretary of State to "object to any attempt to treat the

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1979 Moon Agreement as expressing customary international law." This can be said to have acted as the bedrock for the Artemis Accords.

The Artemis Accord

The National Aeronautics and Space Administration's Artemis Accords encompass a series of bilateral agreements between the US and other states to establish a common vision via a practical set of principles and practices for enhancing the governance of civil exploration and using the outer space to advance the Artemis Program. It further envisages to land the first woman on the Moon by 2024 with participation of both international and commercial players.

The Accords require the nations to ensure that space missions are deployed for non-combat purpose, remain transparent in their plans and policies for space exploration, work towards interoperability of space agencies, make available emergency assistance in space, register Space objects as per the Registration Convention, share scientific data among other signatories, preserve outer space heritage and reduce space debris and ensure minimal waste generation.

The principles are intended to apply to civil space activities of each Signatory by taking appropriate measures such as mission planning and contractual mechanisms.

The Sino-Russian International Lunar Research Station Initiative

With Russia dismissing the Accords to be a tool for American hegemony, along with NASA's ban from collaborating with China in 2011, the Roscosmos signed a partnership with China's National Space Administration (CNSA) to develop an International Lunar Research Station (ILRS) on the Moon or as Professor Velina Treschokva puts it, "A Dragon-Bear Space Coalition to counter the Eagle."

In June 2021, the Chinese national space agency released a three-phase plan for the ISRL Project with phase 1 (from 2021-2025) which would collect data and validate "high-precision soft landing" for lunar missions. The second phase or the construction phase (from 2026-2035) would involve two stages with the initial stage involving joint missions, delivering cargo and collection of lunar samples and the second involving construction of lunar and in-orbit. In the third phase, beginning in 2036, crewed landings will begin. The two countries are actively inviting other nations as well, to collaborate and develop the facility.

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The Sino-Russian space exploration alliance will certainly be a major rival for the Artemis initiative, considering Russia's extensive expertise in space technology and China's resources.

India's Position with Respect to the Two Blocs

The two geopolitically opposite space exploration programmes have created new dilemmas for India's lunar governance and ambitions since the decisions it takes will be based on its relations with the pioneers of these blocs.

To understand the complexity of India's choice with respect to these two blocs, it is vital to look at India's space collaboration with the blocs' members, and their diplomatic relations. The reason for doing so is to provide an all-encompassing solution for the scenario since India's decisions in this regard will inevitably affect its relations with all the countries involved.

India and the Artemis Accords

Lately, there has been an increased level of collaboration between India and the US' space agencies. India's first lunar space project, Chandrayaan-1 carried the Moon Minerology Mapping System developed by NASA.

ISRO and NASA are presently working on the NISAR project, which will launch in 2022 and plans to measure the causes and consequences of land surface changes using advanced radar imaging. The two countries have also decided to conclude an MoU on Space Situational Awareness (SSA), creating a framework to protect each other's satellites from man-made or natural threats.

India's close bilateral space collaboration with signatories like Japan in the LUPEX Project and Ukraine in the sphere of semi-cryogenic engines also provides a strong backing for India to join this initiative.

From a diplomatic angle, this initiative forms a natural link to the Quad's Critical and Emerging Technologies Working Group since the US, Japan and Australia are already signatories of the Accords.

Given the recent privatization of space which allows private stakeholders to enter into space-based commercial ventures, the Accord would allow by allowing sharing of technology, access to global supply chains and improving economies of scale to

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upscale India's entire business ecosystem, starting from the SMEs to the NewSpace start-up sector.

India and US' bilateral relations in general have improved significantly as well, culminating into the 2015 Delhi Declaration of Friendship. The 2005 Defence Framework, bilateral security treaties like BECA and COMSCA, and a Joint Strategic Vision for the Indo-Pacific show the steady partnership between both the countries. Economically speaking, the bilateral trade in 2021 was roughly $145 billion, and the US was the 2nd largest FDI source of India.

India and ISRL

Russian assistance is visible from the inchoate stages of the Indian Space Program, be it the launch of India's first satellite (Aryabhatta 1), or India's first human spaceflight mission in 1984. Moreover, Russia aided India with the provision of cryogenic rockets for its GSLV launchers and is presently training Indian astronauts for the Gaganyaan human spaceflight mission of 2022.

With a long diplomatic history of alliance, the Indo-USSR relationship is important for India's defence and security needs as evident from the Indo-Soviet Treaty of Friendship and Co-operation, 1971. Russia's support for India's Permanent UNSC seat, along with its close multilateral collaboration through fora like BRICS and RIC shape the trajectory of this relationship. The Indo-Russian defence partnership is again of vital significance since Russia is India's largest biggest defence supplier, complemented by prominent military joint exercises. However, Russia's closer proximity to China and India's growing alliance with the USA has not augured well for further co-operation.

Coming to China, despite a shared sense of cultural heritage, Sino-Indian political relations have been turbulent, especially over the Line of Actual Control. Given the recent military skirmishes in Eastern Ladakh, the increased Indo-US co-operation and the growing tensions between Washington and Beijing, there have been impediments in deepening the relations. However, from an economic perspective, China is important for India with a bilateral trade of $125 billion in 2021 and more than $4 billion Chinese investments in Indian unicorns.

So, What Now?

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Looking at India's relations with other space powers, it is clear that joining either of these blocs could potentially sabotage India's strategic diplomatic interests and space ambitions with the other. As of now, India has multiple ongoing collaborations with numerous space agencies across the globe. Therefore, India need not conceptually side with any of the space groupings but rather practice the doctrine of strategic autonomy and make pragmatic collaborations, giving it privileged manoeuvrability across geopolitical blocs.

Notes & References:

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CAN SPACE TOURISM CO-EXIST WITH SPACE BEING TURNED INTO A WAR ZONE?

Karl Grossman[*]

Keywords: Outer Space Treaty – PAROS Treaty – Peaceful purpose – Space Doves – Space Force

The push to turn space into a war zone could spell goodbye to space tourism. The space tourism drive that is underway, led by billionaires Jeff Bezos, Richard Branson and Elon Musk is seen as only a start. Meanwhile, there's the push, led by the United States, to turn space into a war zone—and this, despite the Outer Space Treaty of 1967 that sets space aside for peaceful purposes. As the then U.S. President Donald Trump declared in 2018 while advocating for formation of a U.S. Space Force, "it is not enough to merely have an American presence in space. We must have American dominance in space."The following year, he signed the National Defense Authorization Act of 2020 establishing the Space Force as the sixth branch of U.S. armed forces and said: "Space is the world's newest war fighting domain." The Space Force, Trump said, would "help" the U.S. "control the ultimate high ground." Then, at the unveiling of a Space Force flag at the White House, Trump said: "Space is going to be…the future, both in terms of defense and offense."

Trump's successor, U.S. President Joe Biden, has not rolled back the U.S. Space Force. Several Democratic members of the U.S. House of Representatives last year introduced the No Militarization of Space Act that would abolish the U.S. Space Force. The prime author of the legislation, Representative Jared Huffman of California, in a statement, called the Space Force "costly and unnecessary."

The measure got nowhere. That was not surprising considering that most Democrats in the U.S. House of Representatives and Senate and nearly all the members of the Republican Party voted for the National Defense Authorization Act of 2020 providing for the Space Force's formation. Thus, the U.S. Space Force is moving forward.

Last year, Space Force requested a budget of $17.4 billion for 2022 to expand its reach as reported by *Air Force Magazine*. Space Force also aims to fund more than

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$800 million in new classified programs."Guardians" is the name adopted by the U.S. Space Force in 2021 for its members.

In 2020, the Space Force received its first offensive weapon: satellite jammers. The satellite jammers can be used to interrupt any satellite communication and can hinder warning systems designed to detect attacks from the US. Soon afterwards, the *Financial Times'* headline was: "U.S military officials eye new generation of space weapons."

As to the impacts of war in space, Bruce Gagnon, coordinator of the Global Network Against Weapons and Nuclear Power in Space, in an interview in 2021 said:

In 1989 during one of our campaigns against NASA plutonium launches [NASA's launching of plutonium-powered space probes], we had a rally at the Kennedy Space Center in Florida, and our keynote speaker that day was Apollo astronaut Edgar Mitchell, one of the moonwalkers. And he came and said if there is one war in space, it'll be the one and the only. He said because we will create so much space debris or space junk from all the destroyed satellites and things like that in space that there would literally be a minefield encircling the planet – he called it a piranha-laced river—and we would not be able to get through. A rocket would not be able to get off this Earth through that minefield. So, it's insane to think about having a war in space.

Gagnon has also spoke of how space warfare would mean activity on Earth would immediately shut down as cell phones, ATM machines, cable TV, traffic lights, weather prediction and more are all hooked up to satellites.

Alexander Chanock, while pointing to the generation of space debris resulting from warfare in space, noted that space weapons would produce an immense amount of space debris. Chanock, then a candidate for a law degree, now a legislative counsel in the US House of Representatives, wrote that, "The Fear is that destroying in space could generate extremely dangerous debris with a long orbital life."

Chanock quoted Dr. Joel Primack, professor of physics and astrophysics at the University of California, Santa Cruz, stating that "the weaponization of space would make the debris problem much worse, and even one war in space could encase the

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entire planet in a shell of whizzing debris that would thereafter make space near the Earth highly hazardous for peaceful as well as military purposes."

The blueprint for international cooperation in space has been the Outer Space Treaty of 1967 which sets aside space for peaceful purposes and declares it a "global commons." It was put together by the United States, United Kingdom and the former Soviet Union and has wide support from nations around the world. As Craig Eisendrath, who as a young U.S. State Department office was involved in the treaty's creation, explained, the aim of the Outer Space Treaty was to de-weaponise space before it got weaponized to keep war out of space altogether.

The Outer Space Treaty of 1967 prohibits placement "in orbit around the Earth any objects carrying nuclear weapons or any other kinds of weapons of mass destruction or from installing such weapons on celestial bodies." For decades there has been an effort to extend the Outer Space Treaty and enact the Prevention of an Arms Race (PAROS) treaty, which would bar the placement of any weapons in space. China, Russia and Canada have been leaders in seeking passage of the PAROS treaty. But the United States—through administration after administration, Republican and Democrat—has opposed the PAROS treaty and effectively vetoed it at the United Nations. A rationale for the U.S. Space Force has been that it is necessary to counter moves by Russia and China in space, particularly development of anti-satellite weapons. This is what a Cable News Network report in 2021, titled "An Exclusive Look into How Space Force is Defending America," centrally asserted. There was no mention in the six-minute-plus CNN piece of how China and Russia have been leaders for decades in the push for PAROS, and how China and Russia in recent times have reiterated their calls for space to be weapons-free.

Most recently, the U.S. concern about Russia and China moving into space militarily was heightened by Russia in November 2021 using an anti-satellite weapon to blow up a defunct Soviet intelligence satellite that was launched in 1992. Dr. Paul Robinson, professor of public and international affairs at the University of Ottawa, in an article on RT, views that the Russian effort may be intended to bring the United States to the negotiating table by highlighting the space vulnerability.

The history of U.S. interest in space warfare includes the Strategic Defense Initiative scheme of the U.S. President Ronald Reagan during 1980s, dubbed "Star Wars,"

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predicated on orbiting battle platforms with on-board hypervelocity guns, particle beams and laser weapons energized by also on-board nuclear reactors.

A U.S. Space Command was set up in 1985. The motto of one of its units, the 50th Space Wing is "Master of Space". The unit is now a component of the U.S. Space Force.

A January 2022 article in *Air Force Magazine* called attention on this aggressive stance of the U.S. Space Force. Alexander Chanock also expressed concerns on this issue in his article published in the Journal of Air Law and Commerce. While highlighting the contrasting views on the U.S. developing space weapons, he refers to "Space Doves", who are against space weaponization, especially Nina Tannenwald. Tannenwald wrote that in the long run she believes that the best way to protect American interests in space would be through stability of the rule of law, rather than through unilateral assertions of military power. She asserts that US should promote a transition to a regime that consists of mutual restraint and benefit in space.

However, Chanock, in his piece, stated: "Although space doves have many valid arguments for reducing the danger of space weaponization, in reality, it is unlikely that their ideas will prevail." He noted: "The U.S. Congress has consistently rejected any bill that tries to ban the use of space weapons." He cited bills that "sought to ban space weapons but failed" including the one introduced in 2001 by Representative Dennis Kucinich of Ohio which "did not garner a single co-sponsor."

Internationally, since the creation of the U.S. Space Force, several nations—including the United Kingdom—have begun to emulate the U.S. in space military posture. "How to halt the space arms race" was the headline of an article in the British publication *The New Statesman* in 2021. It stated: "This year the UK launched its own space command, with military chiefs acknowledging space as a domain of conflict co-equal with air, land, sea and cyber," said the piece by Paul Mason.

"We are stuck," the article concluded. "And while polite verbal fencing takes place at the UN, the major powers of the 21st century are engaged in an unprecedented expansion of military power in space, leaving the vast majority of countries

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powerless, most of humanity as passive spectators, and the Earth's orbit increasingly polluted with debris from exploded satellites."

This is pessimistic forecast need not be. The Outer Space Treaty of 1967 was—and is—a visionary documentary. War on Earth is terrible enough. It must not be brought up to the heavens. This will take continued political will and international pressure—to preserve and extend the Outer Space Treaty of 1967 and its setting aside space for peaceful purposes. Especially in the United States, this will require action at the grassroots because the two major political parties in the U.S. have joined in a bellicose stance on space, supporting it becoming a war zone. Every year, the grassroots organization Global Network Against Weapons and Nuclear Power in Space, founded in Washington, D.C. in 1992 and the leading group internationally challenging the weaponization of space, holds a "Keep Space For Peace Week" with actions around the world. Meanwhile, there are nations around the globe that have, unlike the U.S., adopted a peaceful stance—as reflected in their support for the proposed PAROS treaty.

We must, indeed, keep space for peace. Can space tourism co-exist with space being turned into a war zone? The answer is no. And with a shooting war in space, it will not only space tourism that would be kissed goodbye.

Notes & References:

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DEVAS-ANTRIX DEAL: WHEN WILL THE GHOSTS OF FRAUD BE EXORCISED FROM THE AVIATION SECTOR?

Soumya Gupta[*] *& Dr. Shouvik Kumar Guha*[**]

Keywords: Air India – Arbitral Award – Corporate Fraud – Devas-Antrix Deal – Insolvency

History of the Dispute

Given the increasing reliance of India on space-based assets and technology, especially for the communications sector, the Devas-Antrix dispute that seems like an ever-renewing source of controversies involving the misuse of political power and governance norms for profit-based ulterior motives, represents a black mark in the country's aviation and space law spheres. The beginning of the Devas-Antrix debacle goes back to 2005 when an agreement was entered into by Antrix Corporation ['Antrix'] and Devas Multimedia Private Limited ['Devas']. Antrix, established in 1992, was created to commercialize space products. Devas, short for Digitally Enhanced Video Audio Services, set up by former Indian Space Research Organization ['ISRO'] engineers, and was developed for betterment of satellite communications in space. Devas also has foreign investors from Mauritius involved in the building of the company. The agreed terms were that Antrix will provide 70 MHz of the S-Band space segment to Devas for its digital multimedia services. The S-band space segment is generally used by security forces and government telecom entities and is scarce is global marketplace. Accordingly, Antrix would build, launch and operate two satellites GSAT-6 and GSAT-6A, and lease 90% of the satellite transponder capacity to Devas for its digital multimedia services. Devas agreed to pay a total of $300 million over twelve years to Antrix. Thus, the overall aim of the signed project was to provide broadband wireless services to the remote areas of India.

With a rather achievable and needful goal, both parties proceeded towards their respective duties. However, six years into operation, certain irregularities were noticed and highlighted by mainstream media like The Hindu – these included discrepancies such as financial mismanagement, conflict of interest, non-compliance of rules, and favoritism. Subsequently, February, 2011 witnessed the cancellation of the deal by the then Indian Prime Minister, Dr. Manmohan Singh, based on the

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ambiguously worded phrase security reasons Soon after that, allegations surfaced that the Antrix contract deal was tainted with corruption, which was not an out-of-the-box allegation against the United Progressive Alliance government. The decision to annul the deal was taken amidst the 2G scam and in the face of mounting claims that the deal involved the handing over of communication spectrum valued at nearly Rs 2 lakh crore for a mere pittance.

Chain of Arbitral Awards and Judicial Decisions

The uncalled and invalid abrogation of the deal had upset Devas, which led to a series of judicial decisions. The three legal disputes that arose from this were a commercial arbitration between the Antrix and Devas Multimedia at the International Chambers of Commerce ['ICC'], and two bilateral investment treaty ['BIT'] arbitrations brought by the Mauritius investors in Devas Multimedia under the India-Mauritius BIT ['Devas tribunal'] and by German company Deutsche Telekom under the India Germany BIT ['DT tribunal']. India saw victory in none of the three international disputes. The ICC arbitration tribunal in 2015 ordered Antrix to pay $562.5 million-plus interest to Devas as damages for wrongfully repudiating the contract. A United States ['US'] court recognized and confirmed the ICC award in 2021. India appealed against the decision of the Devas and DT tribunals before the Dutch and Swiss courts respectively but lost again. Thus, all the international proceedings had issued orders against India; however, in India there were a variety of other issues raised against Devas.

Cases and Investigations were filed against both the parties in India as well. The Department of Space ['DoS'] said that the Central Bureau of Investigation has filed an FIR against Devas and other unknown public servants of Antrix/ISRO/DoS and it is presently under investigation. The Enforcement Directorate has launched an investigation against Devas and its directors and foreign subsidiaries under Prevention of Money Laundering Act and Foreign Exchange Management Act ['FEMA']. Devas Multimedia is suspected to have received foreign direct investment of Rs. 578.54 crore between May 2006 and June 2010 from various overseas investors, but the share subscription agreements it entered with them contained clauses contrary to the conditions specified in the approvals granted by Foreign Investment Promotion Board. Devas Multimedia was also charged with contravening the FDI regulations under FEMA for assuring foreign investors an

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annual eight per cent priority dividend in addition to other dividends on cumulative basis, and for one tranche of receipt of funds, issuing a security akin to an External Commercial Borrowing promising higher returns than the ceiling fixed by the Reserve Bank of India.

In October 2020, a US court asked Antrix to pay the damages after Devas investors approached it for enforcement of the award. The Canadian Court in this regard allowed Devas' shareholders to seize an amount of over USD 30 million of the Airport Authority of India ['AAI'] held by the International Air Transport Association ['IATA']. This US court order was put on stay by the Indian Supreme Court in November 2020. The Court also asked the Delhi High Court to hear arguments from Antrix against the enforcement of the award. Later, in January 2021, acting upon the advice of Ministry of Corporate Affairs, Antrix approached the Bangalore bench of the National Company Law Tribunal ['NCLT'] in January 2021, to initiate a winding up petition against Devas under Companies Act. NCLT passed a judgment to wind up Devas on account of fraud during the original deal. Among the other contentions brought forth by Antrix, a key one was that its original agreement with Devas mentioned subsidiaries and associate entities like the DEVAS2 Technology, DEVAS Device and DEVAS Services, despite none of these entities ever being in existence throughout the existence of the original company. In September 2021, the National Company Law Appellate Tribunal ['NCLAT'] upheld the NCLT judgment. Subsequently, one of the ex-directors of Devas Multimedia and DEMPL, a minority shareholder in Devas, challenged the NCLAT order before the Supreme Court. The latest development in the series of judgments and orders happened on January 17, 2022, where the Supreme Court upheld the NCLAT judgment on winding up Devas, and also the NCLAT finding that the entire company had been set up with fraudulent motives in connivance with certain officials from Antrix. In doing so, the Supreme Court also refused to entertain Devas' argument that the current petition filed by Antrix had been done solely to deprive Devas of the benefits of the aforementioned international arbitral awards, or that Antrix's petition is barred by limitation.

What Lies Ahead?

The trajectory of international judicial decisions show that Devas is armed with orders against India and has initiated proceedings in multiple jurisdictions to attach

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the assets of Indian public sector undertakings. Devas has witnessed success in courts of France and Canada. The Indian government is resolute to get Devas to wound up; however, it is not easy to get an irrevocable criminal conviction in this case. The Supreme Court judgment is helpful in challenging the attachment order on the basis that Devas-Antix contract violates international public policy since the contract was contaminated with fraud from the beginning. Generally, courts accord high deference to an arbitral award and refrain from delving into the merits of the case. Added to the fact is that India has already lost two cases emerging from violation of the BITs. This would mean that India will have to put up a tough fight in international courts. The end of the Devas-Antrix saga anytime soon seems bleak since both the parties are trying to make their best case using all legal aid available.

In response to the asset seizing order favoring Devas, the AAI in the beginning of the year announced that it would defend itself by taking legal recourse. These assets include, *inter alia*, air navigation charges and aerodrome charges collected on behalf of AAI. A huge battle lies ahead of AAI to defend its assets from getting attached. Earlier, Indian government did not choose the best legal way to defend itself in the tribunals. However, considering the huge amount at risk here, it is essential that AAI takes a sound legal step ahead, keeping in mind the consequences that could follow for an already pandemic-hit aviation industry. The initial developments so far seem promising, with the erstwhile Indian national carrier Air India already having won a judgment in its favour in February 2022 from the Quebec High Court in Canada, allowing it to challenge an earlier Canadian order to consider the airline as a representative of the Indian government and seize its funds to give effect to recovery of compensation, as awarded under earlier arbitral awards, by foreign shareholders of Devas. A similar challenge is also on its way at the United States Federal Court for the Southern District of New York. Meanwhile, with the shareholding of Air India having been transferred to the Tata Group of companies through the latter's subsidiary Telace, arguments claiming the carrier as an alternative to the Indian government for recovery of said arbitral awards, are likely to face even greater opposition before any court of law.

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MILITARY USE OF COMMERCIAL REMOTE SENSING SATELLITES

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Keywords: Commercial Satellites – Militarisation – Outer Space Treaty – Remote Sensing – Satellite Imagery

Background

On 1 March 2022, Ukrainian Minister of Digital Transformation, Mykhailo Fedorov sent out an appeal to most of the world's commercial satellite companies via Twitter urging them to help Ukraine by providing satellite imagery for military purposes. The Minister urged eight of the world's leading earth observation satellite companies to provide high-resolution satellite imagery to monitor Russian troop advancements. Companies like Maxar Technologies and Planet Labs have openly published the images to the media, which is how the world has been witnessing the menace and destruction caused by the war in real time. Moreover, on 2 March 2022, Elon Musk in a tweet acknowledged his direct support to Ukraine by promising to provide better internet connectivity by activating the internet terminals of his satellite internet constellation – Starlink. When civilian or commercial satellites are used for military purposes, it raises serious concerns regarding whether the satellites are to be considered as civilian or military assets.

This is not the first time that civilian or commercial satellites have been used during a military conflict for military purposes. Operation Enduring Freedom, alternatively known as the Global War on Terror, was the first instance when the military relied heavily on commercial satellite space assets like high resolution satellite imagery and satellite communications.

Remote sensing has been used as a mode of surveillance for centuries. Even before the First World War, remote sensors have been utilised by attaching them to hot air balloons and flying them over target cities. Now, however, specialised satellites with variegated capabilities are being used for remote sensing. These include but are not limited to optical satellites, radar imaging satellites, ultraviolet and infrared imagery satellites, and signal intercepting communication satellites. Remote sensing has several advantages over any other forms of reconnaissance as it can provide high-

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resolution imagery of not only visible light but also other wavelengths of light. This information can be further used for monitoring enemy troop advancements, strategic planning, and tactical threat assessment.

With the explosive growth of science and technology and the reliance of military activities on the same, the demand for better connectivity and higher-resolution imagery was beyond the military's ability to fulfil with military owned satellite technologies. The biggest military in the world, the United States Military has since then heavily relied on commercial satellite assets for military use.

Since the attacks of 9/11, the United States have dedicated billions of dollars for the renovation of their military satellite technology for the swift utilisation of these assets by the UK, US and Canadian forces in the 'Global War on Terror'. Infact, in the year 2006 the United States National Space Policy which was authorised by then President George W. Bush directed all governmental departments and agencies to use, purchase and even modify the U.S. commercial space capabilities and services to the maximum extent to meet the United States Government requirements and make them cost-effective.

Legalities

Such instances have raised further questions regarding the legalities of the militarisation of commercial or civilian satellites, especially with respect to remote sensing, which has been widely debated in recent years.

The 1967 Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies, also known as the Outer Space Treaty, provides certain general provisions for the peaceful exploration and use of space for the benefit and in the interests of all countries on the basis of equality and in accordance with international law. However, it does not provide any specific provision to tackle the legal problems surrounding remote sensing.

It is certainly difficult to understand what kind of military applications fall under activities that are "for the benefit and interest of all countries" as mentioned in the Outer Space Treaty, as any military activity by one country can be seen as an act of aggression by another country. Article I of the Outer Space Treaty, thus, creates a

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loose obligation that all activities should not be 'harmful' in the general sense as opposed to being 'beneficial'. However, it does not provide any clarity on whether placing commercial remote sensing assets with military capabilities in earth orbit is in the common interest of all countries.

Article III of the Outer Space Treaty dictates that all outer space activities shall be conducted in accordance with international law which shall include the Charter of the United Nations and it shall be in the interest of maintaining international peace and security and promoting international cooperation and understanding. Since the United Nations Charter overrides rights or obligations under any other treaty, the Outer Space Treaty must be read in consonance with the United Nations Charter. In the interest of maintaining international cooperation, Article 2(4) of the United Nations Charter provides that countries should refrain from threatening and using force against the territorial integrity of any country, or in any other manner inconsistent with the purposes of the United Nations.

Article IV of the Outer Space Treaty prohibits placing into orbit any objects carrying nuclear weapons or any other kinds of weapons of mass destruction and seeks the complete demilitarisation of celestial bodies. However, when read in unison with the United Nations Charter, it can be understood that no restrictions are imposed on any other military activities like remote sensing or satellite communications.

Article IV further dictates that the Moon and other celestial bodies shall be used for 'peaceful uses' by all State parties. Fortification, setting up military establishments and testing of weapons are strictly forbidden. What the Outer Space Treaty fails to address is the clear meaning of 'peaceful uses' and what kinds of activities fall under this definition. Moreover, the provision provides for peaceful use of the Moon and other celestial bodies but fails to mention that outer space as a whole is ought to be used for peaceful purposes and not only for celestial bodies.

The question that arises here is whether using military capabilities like remote sensing of other countries by using commercial assets violates or infringes the rights or territorial integrity of those countries. If we were to consider the principles of air and maritime law, it is clear that reconnaissance or espionage is permissible on the high seas but not in the territorial waters or the territorial airspace of countries targeted for surveillance.

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The Principles Relating to Remote Sensing of the Earth from Outer Space (the "Remote Sensing Principles") which was adopted by the United Nations in 1986 creates more confusion in this regard as Principle I of the same states that "remote sensing activities by countries shall be conducted to improve natural resources management, land use and the protection of the environment." This provision leaves room for narrow interpretation that remote sensing shall only be conducted for limited civilian purposes and no military applications for remote sensing shall be allowed.

A better understanding is provided under Principle IV which states that activities are to be undertaken keeping in mind the rights and interests of the sensed country and in accordance with international law. Principle XII further directs the sensing country to provide access to all primary data and the processed data to the sensed country on a non-discriminatory basis and on reasonable cost terms. However, there is a continuous debate regarding the ambiguous nature in which the words 'non-discriminatory' and 'on a reasonable basis' have been used in the provisions.

The Principles on Remote Sensing also obligate states to undertake remote sensing activities in consonance with norms of international law and state responsibility, therefore the Principles on Remote Sensing act as the basis for states to be held accountable for their actions and also creates obligations for them under the international law framework. On the other hand, the recent rise of non-state actors who have increasingly begun to be drawn into the space race means that Principles in their current form are not extended to them. Further, the rapid ascension of private entities into the commercial satellite spaces also creates a new challenge for the existing framework which is not only not designed to encompass such non-state actors but also does not take into consideration their involvement in military conflicts. The lacunae in this regard needs to be addressed keeping in mind the changing dynamics, especially in light of recent developments.

Conclusion

Lawful remote sensing should be a matter of consent and consultation. Any military espionage using commercial assets with respect to remote sensing should not be considered lawful as it infringes the rights and interests of the sensed countries. It is surprising that most countries do not consider remote sensing by other countries for military purposes to be unlawful. The majority of countries which possess

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capabilities to use remote sensing technologies for espionage and reconnaissance are the ones with vast wealth and tremendous military capabilities, this may be one of the reasons why unlawful remote sensing is still ubiquitous in the present day. A combined reading of Article I, III and IV of the Outer Space Treaty tells us that the Outer Space Treaty only creates a loose obligation on all State parties who are to conduct activities for the benefit and interest of all countries, which shall be done in accordance with the international law in the interest of maintaining international peace and promoting international cooperation and that it shall be done exclusively for peaceful purposes.

Principles IV and XII of the Remote Sensing Principles 1986, are small steps toward the right direction as they make it mandatory for countries to have the prior consent of the sensed country before undertaking any remote sensing activities and provide all the primary data concerning the sensed country in a non-discriminatory and cost-effective manner.

Notes & References:

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INITIAL THOUGHTS ON A POSSIBLE REGIME FOR SPACE TRAFFIC MANAGEMENT

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Keywords: Registration – Soft law – Space safety – Space traffic management – Sustainability

With the rapid development of space technologies, space tourism and transportation have become a reality and will continue to thrive in the process of space commercialization and privatization. It is obvious to all that the existing space law rules cannot meet the needs of future space transportation. It is time to seriously consider a possible legal regime to deal with space traffic management to ensure the safety of spacecraft in orbit and avoid potential collisions or accidents.

Space traffic management has a broad scope, covering the whole period from pre-launch, operation to re-entry of space objects. Space traffic management is defined by the International Academy of Astronautics (IAA) as "the set of technical and regulatory provisions for promoting safe access into outer space, operations in outer space and return from outer space to Earth free from physical or radio-frequency interference." According to the Research Report on Space Traffic Management issued by the IAA in 2006, space traffic management, with the aim to maintain space order and protect space safety, includes at least three major areas: data collection and space situational awareness, space notification system, and specific traffic management rules.

Space traffic management is vital to the maintenance of space security and orderly development of space activities. Space safety, stability and sustainability are the cornerstones of all types of space activities. Creating a safe, stable and sustainable space environment is the common interest and responsible of all space-faring nations.

Avoiding collisions in outer space is a means to ensure space safety. Accordingly, space traffic management shall strive to avoid potential space collisions and ensure the safe passage of outer space and return to Earth. With a large number of moving space debris in outer space, there is a need to constantly update real-time data to avoid potential collisions. In addition to space debris, many satellites already in orbit

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have the potential to collide with other objects. There are normally two steps to prevent satellite collisions: collision risk assessment, and collision avoidance maneuver. Collision risk assessment is to predict the collision probability of an in-orbit space object with other objects. Collision avoidance manoeuvres are to take active actions by menoeuevering an in-orbit space object to avoid collisions. The effectiveness of these two steps relies heavily on the information sharing of the on-orbit positions of space objects in advance through space traffic management, so that all parties can reasonably predict and maneuver.

From the 1990s to the early 2000s, relevant discussions were still limited to the theoretical and conceptual stage. Starting from the 2010s, some concrete steps were taken to put academic discussions into practice. The Draft Code of Conduct for International Space Activities put forward by the European Union in 2014 reflects the initial steps in tackling the issue of space traffic management. During the annual session of the Legal Subcommittee of the United Nations Committee on the Peaceful Uses of Outer Space (UNCOPUOS) in April 2015, the delegations of Germany and Luxembourg co-sponsored a new proposal to include a new agenda item on the exchange of views on the concept of space traffic management. The United States (U.S.) issued Space Policy Order No. 3 in 2018 with the aim to establish relevant responsibility and liability systems in the international governance regime for space transportation. Meanwhile, the U.S. Department of Defense issued a document entitled Space Defense Strategy in June 2020, which emphasized the importance of sustainability of U.S. space activities and its leading role in the negotiations for an international governance regime for space transportation. It is to be noted that the concept of space traffic management in the U.S. focuses on how to ensure national safety through the clarification of relevant criteria and requirements for traffic management; and the U.S.' leading position in the space arena through the promotion of military-civilian integration.

The United Nations (UN) has played an important role in the enactment of space law rules and will continue its efforts in the field of space traffic management. The trend is clear that the UN aims to set up a pragmatic mechanism in coordinating and promoting cooperation among all States to facilitate the consensus-building process in order to reduce space collisions, enhance space sustainability and improve information sharing through space situational awareness mechanisms. In the meantime, the International Civil Aviation Organization (ICAO), as a specialized

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Agency of the UN, has also started concrete research work at the international level, it would be useful to examine possible measures to be taken in the interim before any legal framework is instituted. It is expected that the work on space traffic management will have a major impact on future development of space law.

The role of soft law rules for space traffic management

Space activities are closely related to national safety and security. However, with more and more states joining the space club, the consensus on a binding legal document becomes increasingly difficult. The whole process has been more complicated with the involvement of private entities. As such, there is a need to look to soft law rules for immediate solutions. In this regard, relevant soft law documents relating to space debris mitigation and space sustainability would help to clarify certain issues involved in space traffic management. Such documents include the UNCOPUOS Space Debris Mitigation Guidelines, the UNCOPUOS Guidelines for the Long-term Sustainability of Outer Space Activities, and the UN Group of Governments Expert (GGE) Report on Transparency and Confidence-building Measures (TCBMs) in Outer Space Activities.

An international regulatory body

It is essential to have an international regulatory body to deal with space traffic management for civil and commercial purposes. This entity would play a role in the coordination and enforcement of relevant traffic rules. Due account should also be given to issues such as space debris mitigation, space data sharing, and establishment of relevant safety standards. The principle of international cooperation has been emphasized on various occasions for space activities. No single country can effectively manage space traffic alone. Cooperation in space traffic management is of utmost importance to the success of future space tourism and transportation. A neutral cooperative platform through an international regulatory body shall be the ideal way out. The ICAO, in view of its rich experience in civil traffic management, shall be the ideal entity to take up this role. This body shall also work closely with the national entities in the field and coordinate their work at the international level.

Space situational awareness (SSA)

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Space situational awareness, involving data exchange and information sharing, is essential for space traffic management. It refers to the recognition of the necessary and predictable space environment and the operational environment on which space activities depend, including the positions and movements of space objects in orbit. Accurate information on the location and surrounding environment of satellites and/or space debris is vital to the safety and security of space activities. SSA could be understood in a broad sense through three mission stages: 1) collecting various data of space objects; 2) analyzing the data to predict the probability of close encounter between two space objects and the risk of re-entry; 3) communicating with stakeholders about potential risks so that necessary actions can be taken.

At the moment, only a handful of States have space situational awareness systems and capabilities; no country can simply rely on its own efforts to achieve accurate cognition of all space objects in the world. Consequently, there is a need for the international community to share SSA data. Since the Outer Space Treaty or other existing binding space treaties do not provide for the duty to disclose and share SSA data, it is necessary to establish an international coordination mechanism for an integrated space situational awareness system, which can provide a reliable and accurate situational judgment source and foundation for space traffic management.

With the ongoing space commercialization and privatization, more and more private entities become the providers of relevant space data. The participation of private entities is undoubtedly conducive to the sharing of space data; however, no clear rules are in place regarding the rights and obligations these private entities enjoy in the process of data sharing. Accordingly, further rules should be clarified regarding the duty of data sharing in space traffic management, the scope, and standards for data sharing.

Very closely related to the SSA, registration of space objects is important in improving transparency in outer space and space activities. An important prerequisite for the successful development of shared space situational awareness is to ensure that the shared data is effectively regulated. The information provided in the registration can serve as the firsthand source for the SSA purpose. The Registration Convention and the UNGA resolution on improving the registration practice offer necessary rules on the registration of space objects. However, when space transportation becomes more frequent, there is a need to

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explore a separate/or different regime regarding the registration of spacecraft for the purpose of regular commercial transportations.

To conclude, peaceful exploration and use of outer space has always been the unremitting pursuit of mankind. With more and more States attaching importance to and actively participating in the development of space industry, space technologies are having a significant and far-reaching impact on the way of life of human society. At a new historical starting point, space traffic management has entered the public's field of vision. While realizing that it may bring fundamental contributions to aerospace development, it is necessary to look into possible legal framework to regulate space traffic and improve the global sharing of space situational awareness, so that space technologies can serve and enhance human well-being in a wider, deeper and higher level. This will in turn bring peace and harmony to humankind and betterment of their life.

Notes & References:

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THE RATIONALE OF DOMESTIC LEGISLATION FOR SPACE ACTIVITIES

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Keywords: Commercial exploitation – Non-appropriation - Public order – Space industry

Introduction

There is a lobby in India, with an argument that if ISRO could work so successfully, achieving laurels globally and establishing international landmarks for over half a century, then the need for a domestic *lex specialis* does not exist. If at all, the hard-mould of legislative enactment may interfere with the organisational autonomy, speed of achievement and traction of innovation. This rationale seems comparable to a common American refrain "If it ain't broke, don't fix it." In fact, India has been rather lucky in this regard with fast development of technology and almost liability-free operations, but this logic of empirical success does not hold enough ground, and luck may not smile always.

Therefore, a deeper consideration of this argument reveals its weaknesses. There is an intrinsic fallacy which fails to look at other aspects of industry development, constitutional mandates, taxation calls, delegated international obligations from the Outer Space Treaty (OST) and other germane international instruments. Further, ground realities are changing fast; space activities are changing their character from scientific exploration to commercial exploitation; States are squeezing funds from the exchequer for activities with commercial uses while private enterprise is ready and willing to fill this vacuum.

Hence, the alternative argument prods to enact a domestic space legislation to embody certain essential fundamentals. For example, to embody international obligations incumbent upon State parties to create conformance to its own constitution, in consideration of permeable taxation avenues and to be promotive of its own business culture. These compulsions and considerations provide enough rationale for such a specialised enactment which accords due deference to the mandates of the OST, peculiarities of space technology, the colossal investments in research and development, huge outlays in infra-structure, long gestation period to

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profit, the specific dynamics of the space business and above all, the continued race to reach the goal-post first.

This suggestion, however, is with a caveat as not to create a multiplicity of laws on the same subject or with a similar object[1] and at the same time not to establish multiple bureaucracies to regulate and govern the same activity. Such a predicament may be the bane of execution and also embarrassing to the judiciary. Nevertheless, conflict of interest in the governing organisation should be avoided. Some of the considerations underlying this hypothesis are discussed in succeeding paragraphs.

Implementation of the Treaties at the State Level

Countries following Common Law System, like India, usually have a system to ratify those treaties that have been signed by the Executive. This is the basic requirement for considering the treaty obligations as binding. This process has been completed for the main four international instruments germane to space activities, while the Moon Agreement, 1979 still awaits initiation of such ratification by India. In addition, the implementation of international obligations at the domestic level in India requires a legislative act of passing a law.

On the other hand, countries that abide by the Roman Law System, like the US, follow the doctrine of General Reception. In their case, treaties that are ratified by them become self-executing treaties, which do not need any subsequent legislation for implementing in the domestic level. Japan also follows similar practice and treaties with due ratification are automatically accepted as integral to domestic law.[2] It needs no additional enactment, legislative debate or approval. Thus, these systems flag the difference in the character of, as also the manner of, State-level implementation of the treaties to give them effect into municipal law. This difference in approach also highlights the necessity for a covering national legislation especially in a State like India.

Duties Delegated by the Outer Space Treaty upon the States

The first and most important reason for a national space legislation is the need to support Outer Space Treaty where it delegates certain aspects of implementation on the State-parties. For example, it requires States to maintain a National Register of space objects launched into the outer space and to inform Secretary General of the

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United Nations with details of such launches (Article VIII).[3] This would establish ownership over the object and inform of jurisdiction and control over the same. Thus, this becomes a double-edged weapon of its identification and attribution of liability.

The OST also ordains, "State-parties…shall bear international responsibility for national activities in outer space, including the Moon and other celestial bodies" undertaken by whichever entity (Article VI). It further mandates that such activities "shall require authorisation and continuing supervision" by the appropriate State (Article VI). Thus, this provision demands a conscious legal cover by the State for authorising such ventures and continuing checks of compliance for ensuring safety.

Further, the OST establishes a liability regime where a State "that launches or procures the launching of an object into outer space, including the Moon and celestial bodies, and each State Party from whose territory or facility an object is launched, is internationally liable for damage to another State Party…or to its natural and juridical persons by such object or its component parts on the Earth, in the air space or in the outer space, including the Moon and other celestial bodies." (Article VII).[4] But as liability compensation would be payable from the Consolidate Fund of India, this provision needs admissibility and acceptance according to the Constitution of India.

There are certain other obligations imposed by the OST on the States like non-appropriation of the outer space, including the Moon and celestial bodies, by claims of sovereignty by use or occupation or by any other means (Article II). It is also incumbent on the States to take due regard not to pollute or contaminate the outer space and the celestial bodies or vice versa. Apart from these, there are several soft law resolutions of the UN like Mitigation of Space Debris which command compliance. Thus, these illustrations of State responsibility amply illustrate the need for tiered action at State-level through proper legislation to complement the intent and spirit of the instruments of space law.

Promotion of and Impetus to Space Industry

All nascent industries and business avenues need promotion by the State with incentives and concessions. This action becomes more pertinent to the space industry by virtue of its endemic characteristics and business peculiarities. The space

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industry requires a huge capital outlay, needs continuous research and development activity, carries a long gestation period to break even the costs, heavy amortisation of single-use systems and high risks of failure and losses. No wonder, such an industry looks to stable and long-term policies, sustained patronage of business, underwriting of liability and other incentives in whatever manner possible and legal. At the same time, penal provisions in the act should be reasonable and not excessively punitive to ensure a conducive atmosphere for investments.

Therefore, business houses undertaking space activities need genuine help and cooperation from the State in taxation and from State agencies relating to the use of infrastructure and facilities. These may have to be assured and promised though an enactment because policy may be short-lived or susceptible to changes and thus, may infuse little confidence, unless the credentials of the government are trust-worthy.

Cooperation for Better Public Order in Space

Commercial space travel has commenced operations and with the increasing frequency of scheduled space-lines, the need for space situational awareness and space traffic management would dominate for safe travel. Space tourism and planetary residencies would be the next step in this advancement. Therefore, discipline in such multi-ethnic and multi-nation groupings would be important to accommodate individual sensitivities and social diversities. All these would make cooperation in outer space and on the celestial bodies an imperative necessity.

From another angle also, outer space and celestial bodies are a province of all mankind for peaceful activities and the OST promises freedom of access to all so desirous. This freedom, however, has a rider of non-interference. Nevertheless, this, so-called, common heritage should equitably release benefits to all States. Besides, the space environment is hazardous and even unsparing in its quality and character. Hence, in eventualities of accident or disaster, help and shelter would be wanting from other operators nearby and this succour should be offered without demur or discrimination. These and many other provisions of the OST exhort for cooperation in the outer space that become binding and reciprocal. This attitude and training must start from the State level with an appropriate law that provides such a mental fix for cooperation in outer space.

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In conclusion, these are not the only reasons and compulsions demanding a national space legislation but only illustrative of their genre and character rallying to the same purpose. Ergo, a suitable national space legislation by at least space faring countries would ensure least friction among space users and usher in an era of space cooperation for a flourishing space industry and crime-free peace for space habitations of the future.

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1 For example, the US has more than one space law that progressively advances towards private appropriation of celestial natural resources.

2 The Constitutional Law of Japan, Article 98, paragraph 2 guarantees prior application and implementation of ratified treaties in national laws and domestic courts.

3 Also refer the Convention on Registration of Objects Launched into Outer Space, 1975.

4 Also refer Convention on International Liability for Damage Caused by Space Objects, 1972.

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